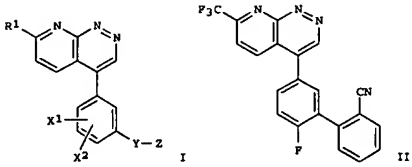
own work

L4 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2004:390245 CAPLUS
DOCUMENT NUMBER: 140:406813
TITLE: Substituted pyrido-pyridazine derivatives which enhance cognition via the GABAA receptor, and their preparation, pharmaceutical compositions, and use
INVENTOR(S): Goodacre, Simon Charles; Hallett, David James
PATENT ASSIGNEE(S): Merck Sharp & Dohme Limited, UK
SOURCE: PCT Int. Appl., 31 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

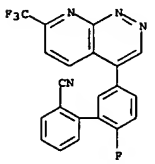
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004039802	A1	20040513	WO 2003-GB4677	20031029
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2003276424	A1	20040525	AU 2003-276424	20031029
US 2006041125	A1	20060223	US 2005-531517	20050415
PRIORITY APPLN. INFO.:			GB 2002-25501 A	20021101
			WO 2003-GB4677 W	20031029

OTHER SOURCE(S): MARPAT 140:406813
GI



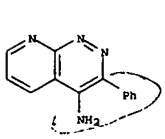
AB The invention discloses compds. I and their pharmaceutically acceptable salts [wherein: X1 = H, halo, C1-6 alkyl, CF3, or C1-6 alkoxy; X2 = H or halo; Y = chemical bond, O, or NH; Z = (un)substituted aryl or heteroaryl; R1

L4 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)
= H, hydrocarbon, heterocyclic, halo, cyano, CF3, NO2, ORa, SRa, SORa, SO2Ra, SO2NRaRb, NRaRb, NRaCORb, NRaCO2Rb, CORa, CO2Ra, CONRaRb, or CRa:NORb; Ra, Rb = (independently) H, hydrocarbon, or heterocyclic].
Also
disclosed are pharmaceutical compns. comprising I, their use in a method of treatment, use in the manuf. of a medicament, and a method of use to prevent or treat anxiety, convulsions, or cognitive disorders. One synthetic example is given, and the same compd. (II) is claimed per se. Thus, Et diazoacetate was α-acylated with 2-chloro-6-trifluoromethylnicotinic acid, followed by cyclization in the presence of PPh3 to give 4-hydroxy-7-trifluoromethylpyrido[2,3-c]pyridazine-3-carboxylic acid Et ester. This compd. underwent alk. sapon., thermal decarboxylation, conversion of the ring alc. to a chloride, and Pd(0)-catalyzed arylation with a borylated biphenyl deriv., to give II. In a binding assay, II showed a Ki value of 100 nM or less for displacement of [3H]-flumazenyl from the α2 and/or α3 and/or α5 subunit of the human GABAA receptor.
IT 688744-31-2P, 2'-Fluoro-5'-(7-trifluoromethylpyrido[2,3-c]pyridazin-4-yl)biphenyl-2-carbonitrile
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(drug candidate; preparation of substituted pyridopyridazine derivs. with GABAA receptor activity for cognition enhancement and treatment of anxiety and convulsions)
RN 688744-31-2 CAPLUS
CN [1,1'-Biphenyl]-2-carbonitrile, 2'-fluoro-5'-[7-(trifluoromethyl)pyrido[2,3-c]pyridazin-4-yl]- (9CI) (CA INDEX NAME)



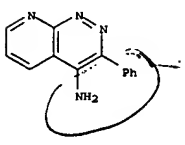
REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

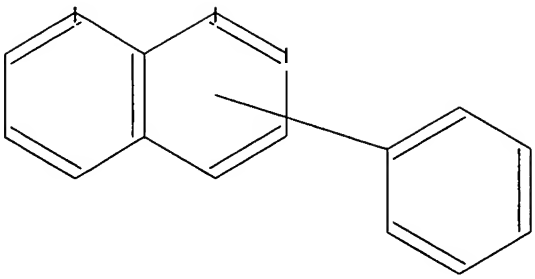
L4 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2004:205973 CAPLUS
DOCUMENT NUMBER: 142:113928
TITLE: Product class 18: pyridopyridazines
AUTHOR(S): Sako, M.
CORPORATE SOURCE: Germany
SOURCE: Science of Synthesis (2004), 16, 1109-1153
CODEN: SSCYJ9
PUBLISHER: Georg Thieme Verlag
DOCUMENT TYPE: Journal; General Review
LANGUAGE: English
AB A review. Preparation of pyridopyridazines is given.
IT 163082-50-6P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of pyridopyridazines)
RN 163082-50-6 CAPLUS
CN Pyrido[2,3-c]pyridazin-4-amine, 3-phenyl- (9CI) (CA INDEX NAME)

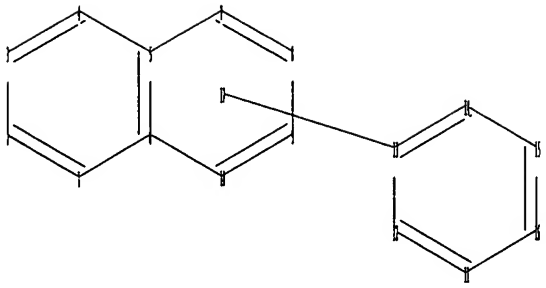


REFERENCE COUNT: 238 THERE ARE 238 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 3 OF 3 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1995:419438 CAPLUS
DOCUMENT NUMBER: 122:290820
TITLE: Trifluoromethyl group in the synthesis of heterocyclic compounds: new and efficient synthesis of 3-aryl-4-aminocinnolines
AUTHOR(S): Kiselyov, Alexander S.
CORPORATE SOURCE: Dep. Chem., Georgia state Univ., Atlanta, GA, 30303-3083, USA
SOURCE: Tetrahedron Letters (1995), 36(9), 1383-6
CODEN: TELEAY; ISSN: 0040-4039
PUBLISHER: Elsevier
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 122:290820
AB A novel base-induced transformation of hydrazones derived from (trifluoromethyl)aryl ketones and arylhydrazines was found to produce 3-aryl-4-aminocinnolines in 52-75% yield. The initial step of the reaction is believed to involve the abstraction of HF from hydrazone. The
potassium bis(trimethylsilyl)amide-induced cyclization of 2,2,2-trifluoro-1-phenylethanone phenylhydrazone gave 3-phenyl-4-cinnolinamine in 63% yield.
IT 163082-50-6P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of (aryl)cinnolinamines from (trifluoromethyl)aryl hydrazones)
RN 163082-50-6 CAPLUS
CN Pyrido[2,3-c]pyridazin-4-amine, 3-phenyl- (9CI) (CA INDEX NAME)







ring nodes :
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
ring bonds :
1-2 1-6 2-3 3-4 4-5 5-6 5-7 6-10 7-8 8-9 9-10 11-12 11-16 12-13 13-14
14-15 15-16
normalized bonds :
1-2 1-6 2-3 3-4 4-5 5-6 5-7 6-10 7-8 8-9 9-10 11-12 11-16 12-13 13-14
14-15 15-16
isolated ring systems :
containing 1 : 11 :

Match level :
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom
11:Atom 12:Atom 13:Atom 14:Atom 15:Atom 16:Atom 17:CLASS

L1 STRUCTURE UPLOADED

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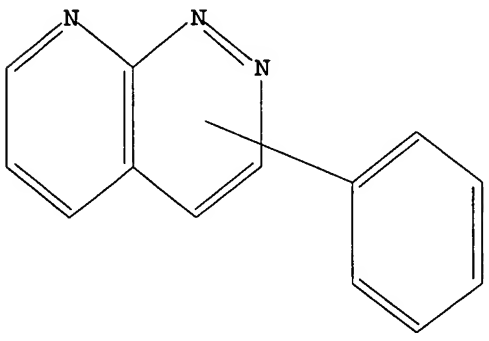
L1 HAS NO ANSWERS
L1 STR



Structure attributes must be viewed using STN Express query preparation.

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SAMPLE SCREEN SEARCH COMPLETED - 85 TO ITERATE

100.0% PROCESSED 85 ITERATIONS 0 ANSWERS

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SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS:  ONLINE  **COMPLETE**
                        BATCH   **COMPLETE**
PROJECTED ITERATIONS:         1147 TO     2253
PROJECTED ANSWERS:               0 TO        0

L2            0 SEA SSS SAM L1

=> s l1 sss full
FULL SEARCH INITIATED 15:27:10 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED -     1735 TO ITERATE

100.0% PROCESSED     1735 ITERATIONS                                 2 ANSWERS
SEARCH TIME: 00.00.01

L3            2 SEA SSS FUL L1

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COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                       ENTRY    SESSION
FULL ESTIMATED COST                                   166.94     167.15

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FILE LAST UPDATED: 6 Apr 2006  (20060406/ED)

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L4            3 L3

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